

ELCLOG

Cutter
Support
Reviews



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270 CSR Helps Keep ELC On Course

By Alan Haddaway

It has now been a year since the 270 WMEC Cutter Support Review (CSR) conference and if you were in attendance you would remember ELC's emphasis on receiving FEED-BACK from the fleet. In order for the ELC to be successful in supporting the fleet's needs, it is imperative to open up the line of communications. This is exactly what a CSR is intended to do, enhance our customer supplier relationship with you. At the 270 CSR each representative from the Cutters, NESU's and MLCLANT provided positive feedback. In fact, not only did they do a tremendous job providing the shipboard knowledge needed to resolve difficult equipment supportability problems, but they were not hesitant to tell the ELC where we needed improvement. This is exactly what we are looking for because if you, "Our Customers", are not willing to partner with us to tell us where we fall short or what works well, then it makes it difficult to improve our products and services for you.

The ELC solicited each cutter for their top 10 supportability problems six months prior to the CSR. With a total of 55 problems submitted, with the help of MLCA, the ELC

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What Is A Cutter Support Review?



By Jim Shorter

Stop right there!

Before you pass this article up and think that this is going to be another one of those policy citing mumbo jumbo articles give me a chance to spike your interest.

In the next few paragraphs I am going to attempt to define a Cutter Support Review (CSR), what we do at a CSR, and provide you with the current schedule of CSRs. Hopefully I will be able to achieve this in a simple fashion while maintaining your interest.

CSR definition IAW COMDTINST 4105.4:

Cutter Support Review=A periodic logistics support review for the purpose of reviewing/updating Cutter Class Maintenance Plans (CCMPs) and Commodity Management Plans (CMPs), ensuring schedules, operation, and logistics support requirements are considered.

OK, so I cited some policy but this is it for CSR policy. Now since most of us read in English and we all know that policy is often written in a way that makes it not very clear to the reader, I will translate for you.

Simplified CSR Definition:

Process by which the ELC, MLCs, NESUs, and Cutters can simultaneously review critical equipment support problems to ID and resolve support deficiencies. There you have it, the CSR definition in a nut shell.

The next issue to address would be what goes on in a CSR? But before we can go on we need to define CMP.

CMP definition IAW COMDTINST 4105.4:

Commodity Management Plan=represents a consensus of projected supply and demand requirements for an individual line item of supply. Its purpose is to provide responsible, efficient, early identification of upcoming Fleet needs.

OK, so I cited some more policy but this time it was for CMP and I said no more for CSRs. I promise no more policy statements! Once again, when put into a user friendly translation, the CMP definition is essentially as follows:

Simplified CMP Definition:

A document generated for the CSR and used during the CSR to document and initiate tasks of resolution for the Critical

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Captain's Message To The Field

To our customers,

A lot has happened since my last message from the engine room. We have transitioned to Supply Center Computer Replacement (SCCR), our new information system to integrate all of our logistics functions. That road has been rocky, as many complex IT systems tend to be. The good news is that SCCR is a very robust system which, in addition to being CFO Act and Y2K compliant, will automate many functions with a high degree of accuracy and utility. The bad news is that most of the data from our old systems (three of them!), was corrupted or otherwise unacceptable to SCCR. This has caused us to be at GQ for the past several months and made satisfying our customers needs more difficult. However, we are ahead of the power curve once again and expect relatively smooth sailing to full deployment of the system by the end of the fiscal year.

But the best piece of news from our customer's perspective is the ELC web site. You can visit us on either the internet (www.uscg.mil/hg/elcbalt), or the intranet (cgweb.elcbalt.uscg.mil). In addition to basic information about the ELC and our products and services, these sites offer you the opportunity to see up to date status on ROD's and QDR's, as well as the status of ELC project, excess property and Supply advisories. However, the feature we're most proud of is Database Alteration Request Tracking System (DARTS). That program will show you the status and many of the details on ShipAlts. Look for that in the Platform Management Section.

I encourage you to surf these sites and learn what's happening in Naval Engineering. The sites are new and we have many enhancements planned, but we need your feedback to make them all you need them to be. Our vision is to maximize the availability of information you need, make it real time and paperless. That vision includes allowances, requisition status and more. We have a ways to go yet, but I think you'll like the course we've set and the progress thus far. As always, I welcome your constructive feedback and I especially want to hear when we haven't met your logistics expectations.

Semper Paratus

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ELCLOG is prepared by the ELC's
Platform Management Division.

Together with our partners, the ELC develops, manages and provides life cycle technical and logistical information support for vessel platforms including cross platform configurations for electronic and ordnance systems. The ELC also manages equipment configurations for communication, navigation, auxiliary, propulsion and electrical systems; providing design and engineering support. The ELC offers full one stop shop services including; provisioning, item management, cataloging, procurement, warehousing, quality assurance, requisition management and distribution for material; performing project management, depot-level testing and repair for electronic equipment.

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ELC Picks Up MCAM Support

Polar CSR

By LTJG Dennis Kohanyi



The Engineering Logistics Center hosted a Cutter Support Review for the Polar Class Icebreakers from 24-26 May 1999. Representatives from PACAREA(pof), MLC PAC (vr-1), MLC PAC (t), NESU Seattle, POLAR STAR, POLAR SEA, and G-OPN attended the conference. 17 Commodity Management Plans (CMP) and seven equipment issues were discussed. The attendees resolved eleven CMPs and three of the issues. The remaining six CMPs were deemed "not CMP worthy", and will be resolved in-house at the ELC. We made progress on the last four equipment issues, but they will all require more time and money before being resolved.

The Machinery Control And Monitoring System (MCAMS) issue continues to have a high priority, and all commands at the conference will continue to work together to support this state-of-the-art propulsion control system. The ELC will take over life-cycle management responsibility from MLC PAC (vr-1) in Fiscal Year 2000. This transition will not result in any changes in MCAMS support, or alter any plans already in place for the system. Naval Surface Warfare Center (NSWC) will continue to provide software configuration management support, troubleshooting and development services. The ELC is better equipped to handle the contract responsibilities with NSWC, as well as provide technical assistance to NSWC and the units. Besides, the rest of the logistic support for MCAMS is already at the ELC. By the time you read this, the MCAMS PC Integration will be completed on both ships. This project interconnects all MCAMS nodes, simplifying software changes. It also allows the ships to save parameter data, eliminating guesswork, and allows log data to be stored on electronic media (such as a zip drive or a hard disk). The next undertaking will be to replace the expensive, difficult-to-support CPU, RAM, and LAN Circuit Cards with more simple, less-expensive, commercially available items. The VME Circuit Card Re-

placement is estimated to take approximately three years to complete, and scheduled to start in October 99.

The CMPs make up the majority of the discussions at every Cutter Support Review (CSR). As a result of the POLAR CSR, the ELC is taking over NESU Seattle's repair programs for several items including CPP Pumps, Pitch Setters, and the SPC-2D MGT Fuel Control. It was agreed that the ELC Contracting and Equipment Management Teams are better suited to handle these items. Other items receiving increased ELC support as a result of the conference include: the Port J-Davit, both 3-Ton and 15-Ton Cranes, CPP Filters, and the Incinerator. The ELC has begun developing an Allowance Parts List (APL) for the Port J-Davit and has started updating the Incinerator and CPP Filter APLs. The ELC will start supporting the Distillate Pasteurizer for the evaporators (pre and post RIP) as well.

CSRs also provide a forum for us to inform attendees about what we do for them here at the ELC and for us to learn more about their responsibilities. The 399 WAGB CSR included presentations on SCLSI, MICA/CALMS, MEEL, Technical Information, and CMPlus. PAC AREA passed invaluable lessons on the logistics support aspects of cutters on Out of Hemisphere deployments, as well as insight into the future of the Polar Icebreaking Mission. NESU Seattle described their role in maintaining the WAGBs. We took the opportunity to describe the new Management Information for Configuration and Allowances (MICA) Manuals for NESU Seattle. These manuals will eventually replace the CALMS Manuals throughout the entire fleet. The NESU MICA Manuals will help the NESU manage their spare parts more effectively. Everyone who attended the conference got something out of it, and support for POLAR platforms continues to improve as a result of the Cutter Support Reviews. ♪

Contacting the Engineering Logistics Center

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Requisition Management
for emergency requisitions,
questions about pending
requisitions, ROD's QDRs, etc.

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for numbers listed in the
platform management pages

Websites:

Internet:
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Intranet:
cgweb.elcbalt.uscg.mil

Record Message Traffic:

The ELC plain language address is:
COGARD ENLOGCEN BALTIMORE MD
Note that this address supersedes the
previous PLADs for Supply Centers
Curtis Bay and Baltimore.

What is a CSR? *Continued from p.1*

Equipment Support Problems which were identified by the MLC message responses.

Now keep these definitions in the back of your mind and lets move on with our "what goes on in a CSR conference" issue.

In a CSR conference members review, as a group, various critical equipment support problems (HM&E, Elex, and Ord). These critical equipment support problems are submitted by HQ, ELC, MLCs, NESUs, and Cutters in response to a CSR solicitation message released by the appropriate MLC prior to the conference. The critical equipment support problems are presented to the conference members in either the CMP format or as an issue. The group then reviews each CMP using the following criteria:

- Is the correct equipment identified
- Is the correct problem identified
- Identify the correct resolution

Once all of the CMPs are reviewed and signed the conference members shift their focus to reviewing CSR issues. The difference between CMPs and issues is CMPs require the conference members to identify a path of resolution where issues are usually already on a get well plan and are being provided to the conference members as a FYI courtesy. Once the CMPs and issues have been reviewed the educational segment of the CSR begins. This involves various educational briefs ranging from HQ, ELC, MLC, NESU, to RTC issues. The last item addressed when deemed necessary is the

review of the Cutter Class Maintenance Plan (CCMP). Upon completion of the CCMP review the CSR conference is brought to a close.

- Generally CSR conferences last from three days to one week.
- The ELC funds the travel and conference support.
- On the average each allowance document supported Cutter Class will cycle through the CSR process every 2 to 3 years.

So remember next time you are asked to provide CSR inputs, please take the time to provide substantial critical equipment support problems. Your inputs will more than likely show up again but next time in front of 25 to 50 people with the point of origin noted on the CMP itself for all to see.

In addition, the CSR provides a great opportunity to share information with other people who more than likely, have experienced similar problems and possible solutions.

The following is the current CSR schedule:

NOTE: This schedule is subject to change. Jim Shorter is the ELC CSR Logistics coordinator at 410 762-6153. ⚓

FY & QTR	CLASS/ EQUIPMENT	KICK-OFF DATE	EXECUTION DATE
4th Qtr FY-99	225 WLB CSR	07 DEC 98	16-20 AUG 99
2nd Qtr FY-00	378 WHEC CSR	07 JUN 99	14-18 FEB 00
4th Qtr FY-00	210 WMEC CSR	06 DEC 99	14-18 AUG 00
2nd Qtr FY-01	175 CSR	05 JUN 00	12-16 FEB 01
4th Qtr FY-01	110 CSR	04 DEC 00	13-17 AUG 01
2nd Qtr FY-02	140 CSR	04 JUN 01	11-15 FEB 02
4th Qtr FY-02	270 CSR	03 DEC 01	12-16 AUG 02

270 CRS *Contd. from page 1*

resolved 27 of them before the conference even took place, and resolutions were identified for the remaining 28 during the conference. Completion and status of these resolutions will be sent out to each attendee and 270 cutter in this fall, and can be viewed on the ELC Web sites. What is important to note is without a forum like the CSR to bring the end users together with support personnel, class wide resolutions may never have been identified. Instead, individual cutters and MLCA would be left to resolve problems that are not only best suited for the ELC to handle, but is rightfully our responsibility.

In addition to addressing equipment problems at the CSR, there were also issues brought up concerning Quality, Requisition Management, and CM Plus problems.

Quality Problems. It was expressed on more than one occasion, that units have received "F" condition items when ordering a critical part. This concern was addressed both by our Quality Assurance staff and our warehouse quality control personnel. Attendees were informed that not every item stocked at the ELC has a Quality Assurance (QA) requirement listed as a contract line item. Specifically commercial off the shelf low cost items. Only complex repair contracts that have high dollar or are unique to Coast Guard applications receive QA at the manufacturers repair facility. Using one of the problems submitted at the CSR, we received feedback that CPP hydraulic pumps were constantly failing. We took action to immediately freeze all CPP Pumps, inspected and bench tested them, certified the good pumps, disposed of the bad ones and applied QA requirements for the next purchase contract with the OEM. It was also determined for cutter availabilities, where applicable, we will inspect "Show Stopper" items upon being earmarked for shipment. The bottom line is, through your feedback, i.e. submitting a Report of Discrepancy (ROD) or Quality Deficiency Report (QDR) or just making a phone call, the ELC is reactive to your input.

Requisition Management.

MLCA and several units provided examples where the ELC is not sending a timely status back on CASREP Milstrip Requisitions. The ELC took for action to dedicate one individual to solely handle 270 WMEC CASREP Requisitions in an effort to provide better status response. Cutters can contact Requisition Management at



410 762-6800 and ask for PO Genesis Santiago, the 270 CASREP point of contact. PO Windsor Jones is the POC for RODs and QDRs, he can be reached at 410 762-6876.

CM Plus. Headquarters G-SLS briefed the conference attendees on the latest status of CM Plus. Problems specifically identified by the attendees were policy guidance or the lack thereof, software cliches and user friendliness of the system. Policy regarding the carrying of authorized on board allowances being the focal point of the discussions, G-SLS informed the attendees that cutters are authorized to carry any allowances deemed necessary to carry out a cutters mission. However, every allowance must be inputted into CM-Plus. This meaning that if a cutter received a data refresh, and the allowances in CM Plus did not reflect the required allowances in Centralized Shipboard Supply, then those additional allowances would have to be entered into the system to comply with the Chief Financial Office. Data refreshes also caused the PMS data to be lost making the cutter re-input the data each and every time. This is very labor intensive and frustrating for the crew. G-SLS has since sent out guidance on cutter allowances and CM Plus. The day-time-group of the message is "R 221516Z JAN99". The POC for G-SLS is CDR Michael Mangan at 202 267-0660.

These above examples illustrate the type of problems and resolutions that are brought out at a CSR. If you have supportability issues that need addressing, don't hesitate to contact your 270 Platform at the ELC, POC LT John Berry at 410 762-6111 and Mr. Alan Haddaway at 410 762-6155. It is in the best interest of the Cutters, NESU's and ML-CLANT to partner with the ELC and establish a strong working relationship. By networking together we can accomplish great things. ⚓

Visit Our Websites at

Internet:
www.uscg.mil/hq/elcbalt

Intranet:
cgweb.elcbalt.uscg.mil

ELC
Home Page



MORGENTHAU Installs Prototype Turbine Fuel Controls ShipAlt Will Resolve Major Support Issue

By CWO Joe Lyons

The fuel control system presently in operation on the FT4A gas turbines is no longer supported by OEM. There are no longer spares available for the N3 speed governor, oil pump, motor operated fuel valve, flex cable and flex cable sheath. These major support issues have necessitated that ELC acquire a replacement system.

PDI and Woodward Controls have developed the prototype replacement fuel control system. The prototype system will use a Woodward MicroNet Digital controller, Graphic Application Programmer (GAP) software and a servo operated liquid fuel control valve to replace the N3 speed governor, oil pump, motor operated fuel valve and flex cable. The MicroNet and GAP software is in service on thousands of industrial Gas Turbine installations in private industry. The operating procedures for the prototype system will be identical to the presently installed system. Testing of the prototype system was done on Woodward's FT4A electronic model that has been updated with data sampled from CGC MUNRO.

The prototype system was installed Mar 99. It has completed a satisfactory evaluation and a follow on installation is scheduled on the CGC Boutwell in Sept 99. The Fuel Control System Replacement ShipAlt is currently being routed for concurrent clearance. Removed equipment will be maintained at ELC to support the Hamilton Standard systems. ⚓

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Upcoming 270 WMEC Projects

By LTJG John Berry

Several projects are under development for the 270 WMEC's to improve cutter material condition, safety, and habitability. A Remote Emergency Detection System that incorporates smoke, magazine high temperature, flooding, and security alarms into one panel located on the quarterdeck will give the in-port watch the ability to monitor the entire cutter from a single location. Ventilation moisture separators are scheduled to be installed on both A and B Class cutters this year. The installation is intended to reduce the maintenance and cost associated

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110 WPB Windshield Wiper System News

By MKC Tim Maleport

The CGC MUSTANG (WPB 1310) has identified an alternative windshield wiper fluid reservoir, motor/pump unit, and motor bracket. The stock number for the new reservoir, associated bracket and tubing is 2090-01-038-1768. Both the 24 Volt DC pump/motor unit, (Caterpillar part number 3E-5470) and the motor bracket (Caterpillar part number 3E-6088) are available from most local Caterpillar dealerships.

This system has plenty of lift and includes a self priming suction line with a stop/check valve which will keep the pump primed. The only limitation with this unit is that the motor/pump unit is not marine grade; however, due to its location corrosion should not be much of a problem.



Total cost for this configuration change for each cutter is roughly \$100.00 to \$150.00. Units should use all existing stock that they have on hand before completing this upgrade to the windshield wiper system. The affected APL's will reflect this configuration change after the next scheduled print of the unit allowance document. The photo above shows the new system installed on the CGC MUSTANG. If you have any questions, please feel free to contact EM1 Doug Weber on the MUSTANG at 907 224-5202 or MKC James Taylor at 410 762-6143. ⚓

270 WMEC Projects *Contd. from p.5*

with the badly deteriorated Engineroom and Auxiliary Machinery room supply ventilation systems. In addition to the moisture separators, the B-Class 270's will receive new supply fans and modifications to the existing controllers. Look for publication of these ShipAlts by September 1999.

The MPCMS replacement team has created a detailed project timeline that would direct a prototype installation during the summer of 2000. A users group meeting was held in January to define the user needs and develop an initial set of system requirements. The recommendations made by the user's group are currently being incorporated into the system design. (See MPCMS article on page 15.)

The MK 29 Gyro replacement project is also moving along with a prototype scheduled for Spring of 2000. The new Gyro will eliminate the continuing maintenance of the existing MK 29 and provide a more reliable navigational instrument.

MK 6 Liferafts are scheduled to be installed aboard the 270 WMEC this fiscal year. The prototype has been installed onboard the CGC MOHAWK and based on the improved design developed for the 378 installation, a revision to the prototype is being developed. The Coast Guard Yard is tasked with modifying the design and installing the prototype aboard CGC CAMPBELL in August.

CCG NORTHLAND is currently installing the prototype Tank Level Indicator Monitoring System. This system displays potable water, fuel and ballast tank levels on a touch screen and is designed to allow watchstanders to remotely control all system cutoff valves from one location.

For updated status of 270 projects please view ELC's intranet page at <http://cgweb.elcbalt.uscg.mil/docs/psr/medium/html>. ⚓

87 CPB Delivery

By CWO Art Nelson

Here is the latest status of the scheduled 87 CPB/82 WPB Transition Plan through CY99. **DISCLAIMER:** This list is current only to the time of this printing. There are many variables that can and has changed these dates. This list is for information purposes only. ⚓

87 HULL # and NAME	DELIVERY DATE	PROPOSED 82 WPB REPLACEMENT
87309-ALBACORE	30 JUNE 99	CGC PT. HURON, Little Creek, VA
87310-TARPON	28 JULY 99	NO REPLACEMENT, Tybee Island, GA
87311-COBIA	25 AUG 99	NO REPLACEMENT, Mobile, AL
87312-HAWKSBILL	22 SEP 99	CGC PT. HOBART, Monterrey, CA
87313-CORMORANT	20 OCT 99	CGC PT. MARTIN, Ft. Pierce, FL
87314-FINBACK	17 NOV 99	CGC PT. BATAN, Cape May, NJ
87315-AMBERJACK	15 DEC 99	CGC PT. NOWELL, Port Isabel, TX
87316-KITTIWAKE	12 JAN 00	CGC PT. EVANS, Nawiliwili, HI

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CWO James Lee 410 762-6132

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WPB Customer Support

MKC James Taylor 410 762-6143

WPB Configuration Data Manager

MK1 Charles Kalinevitch 410 762-6134

399 WAGB PMS 2000 Conference

By LTJG Dennis Kohanyi

Since our last issue, the ELC held the 399 WAGB PMS 2000 Conference. The conference was held in Seattle and included participants from POLAR STAR, POLAR SEA, NESU Seattle, and MLCP. The participants critically evaluated the current PMS system and, using Reliability Centered Maintenance principals, realigned the system to meet operational needs while eliminating numerous unnecessary procedures. The results are scheduled to be published as a revision to the class PMS manuals in July 1999. This conference was the latest in a series of Coast Guard fleet wide conferences that have resulted in critical maintenance resources being used more efficiently and effectively. In order to take immediate advantage of some of the most significant changes proposed by the 399 WAGB conference members, message DTG 3112342 DEC98 was released. These changes provided immediate relief to POLAR STAR and NESU Seattle during POLAR STAR's scheduled maintenance period. When the new PMS manuals are published, NESU Seattle is going to validate name plate data on the MPC. An amendment to the manual will be published next year with the updated APL and parts data. ⚓

140 WTGB Cutter Support Review

ELC continues to work on the logistics issues identified during the 140 WTGB Cutter Support Review held in March 1998. The ELC tracks action items by documenting each item on a Commodity Management Plan (CMP). The status of each CMP is detailed in the following table. We have determined the National Stock Number for replacement Bridge Windows. We provided MLCA(vr-2) with the results of our research on the Robert Shaw valves. The life raft AEL has been validated. We are drafting a Statement of Work for replacing the MDE mounts. Once completed we will forward the SOW to MLCA(vr-2). We are also researching a viable A/C Compressor replacement. All of these issues are classwide problems that, when resolved, will result in lowering life cycle costs and making sure these cutters continue their mission for many years to come. ⚓

Allowance Change Request

Keep the Feedback Coming

By MKCS Ed Semler

An Allowance Change Request (ACR) is a medium available for field units to request equipment additions or deletions, allowance increases or decreases or equipment change outs. Once submitted the ACR enables the ELC to review and make changes to your Management Information for Configuration

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225 WLB "A" Class and 175 WLM

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and Allowances manual (MICA) manual. The MICA is the support manual which has replaced the CALMS manual. The ACR is the avenue the individual in the fleet has to notify ELC of needed logistic support assistance. A prime example would be the following. Say you are an MK on a new JUNIPER class buoy tender and need to change out oil filters on the #1 SSDG. You go to the SK with the part number for the filters you need and are told they are onboard in the storeroom. This means that somewhere along the line of provisioning for the ship it was determined you needed these filters on board. This determination could have been due to PMS requirements or maybe manufacturer recommenda-



tions. The next day you are trouble shooting the #2 SSDG and find the crankcase vent filters dirty and causing the casualty. You go back to the SK with the part number for the filters and are told they are not listed as an onboard spare part and subsequently not stocked onboard.

After you resolve the casualty by the appropriate means you realizing that these filters are going to get dirty again and you feel you should have a spare set on board. This is when you would now submit an ACR, NAVSUP 1220-2 (12-76) S/N 0108-LF-501-2206 to your ELC Platform Manager, as in this case the ATON Branch. The ACR is a simple 15 block form. Just fill it out insuring you are very descriptive in the justification block 12. Your ACR will be reviewed and either accepted or disapproved. Lets say in this case your ACR is approved. The ELC will add the filters with and allowance quantity to your MICA manual and notify you and the other vessels effected by the change via letter. If you have questions concerning ACR's you are encouraged to contact your ELC Platform Manager. ⚓

We've Got Improved SCLSIS

By Mr. Robby Ramkumar

The Ship Configuration and Logistics Support Information System (SCLSIS) process was developed to improve the reporting of configuration information and the logistics management and control processes for Navy ships, select shore sites, and the Coast Guard Cutters that use Navy owned systems. The primary goal of SCLSIS is to provide direct support for fleet maintenance and material readiness. The Engineering Logistics Center (ELC) provides Configuration Data Management for the Coast Guard. We recognize that successful implementation of configuration data management improves your logistics support, cost controls, and overall Coast Guard fleet readiness.

As SCLSIS Configuration Data Managers (CDM) for Navy-type/owned electronic and ordnance systems, we maintain a master SCLSIS database within the Navy Weapons System Files (WSF) for 400, 378, 270, 210, 225, 180, 175, 110 cutters and selected shore sites and small boats. The WSF is automatically updated through the SCLSIS database and enables fleetwide data processing actions across many activities. As CDMs, we are the NAVSEA agents responsible for maintaining accurate/complete Navy-type electronic equipment configuration, logistics support and technical data. We process your Ship Configuration Change Forms (OPNAV 4790/CK) after installation of field changes, ShipAlts, ECP, etc. and initiate configuration changes to correct errors or missing data.

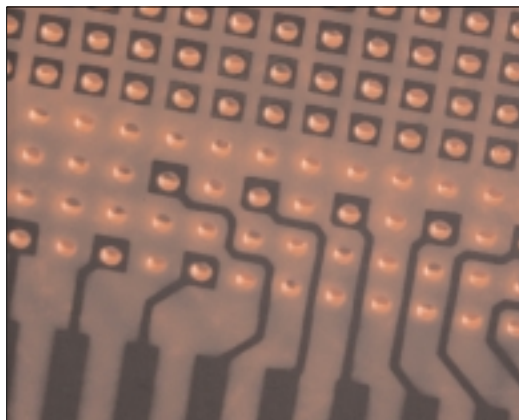
The SCLSIS database serves as the Navy's central repository for ship configuration data and is a useful tool for tracking applicable logistics support products (i.e., technical manuals, APL's, field changes, etc.). We strive to ensure that the SCLSIS database reflects the most current fleet configurations and fleet reported changes. Accuracy is critical. When configuration changes are not accurately reflected, we risk misguided fleet modernization and logistics support efforts.

You play a "key" role in providing us the most current data. Each ship or shore unit is responsible for providing us accurate configuration data so we can keep the database current. You can request a SCLSIS report from us at any time. The report will reflect all the known Navy-type configuration data that is entered for your unit (we recommend that cutters and shore sites request this annually). Only through your dedicated involvement by reporting configuration changes (i.e., OPNAV 4790/CK) and validating the information in the SCLSI Reports can we ensure accurate and current configuration data. Another benefit of you reporting changes to us using the OPNAV 4790/CK forms is that initial outfitting to support changes for Navy-type electronic systems are often issued no cost to the Coast Guard Cutter.

Hopefully this article has given you some insight into the support we provide you as SCLSIS CDMs and the importance of keeping us up to date on your navy-type equipment.

When submitting OPNAV 4790/CK forms, you mail them to: Commanding Officer, USCG ELC 016, 2401 Hawkins Point Rd., (MS-26), Baltimore MD. 21226-5000

If you have any questions, the ELC POC for Navy configuration reporting are the following: Electronics: Mr. Robby Ramkumar at 410 762-6159. RRamkumar@elcbalt.uscg.mil
Ordnance: FTC Eric M. Schoch at 410 762-6621. ESchoch@elcbalt.uscg.mil ↴



ALTERATIONS

By CWO Gabe Montford

The ELC's Alteration Database (DARTS) is available on the ELC's intranet site. For those with intranet access, I encourage you to review the database to determine the status of each alteration under development. Site address <http://cgweb.alt.elcbalt.uscg.mil/dartsqry.htm> ↴

Amendment to ShipAlt 65-WYTL-A-52, Electrical Upgrade

It has been reported to the ELC that an electrical load problem has been identified on several WYTLs since the completion of ShipAlt 65-WYTL-A-52. The problem develops when the full suite of electronic/navigation equipment is energized. This was apparently not the normal operational configuration on the prototype cutter, but is on other cutters. Therefore, we did not get a full load test during the prototype. We have identified a solution which involves installing a larger capacity battery charger. ↴

Installation of 140 WTGB ATON Barge Hydraulic Release Hooks/Fender Relocation

By CWO Jim Lee

This alteration will apply to MOBILE BAY and BRISTOL BAY only and will correct a safety problem inherent in the current barge release system by installing a remotely activated release hook system. The Alteration will also include moving the fenders from the barge notch to the cutter's bow. This alteration is scheduled to be ready for publication by September 1999. ↴

399 Turbine Vibration Monitors

The new MGT Vibration Monitors have been installed on both Polar Class Icebreakers. The installation is similar to the MGT Vibration Monitors on the 378 WHEC. The new system is an improvement over the obsolete system it replaced. It is more precise, more durable and has the capability to expand in the future if needed. The shipalt is scheduled to be issued in December 1999. ↴

Icebreaker Branch

Chief, Icebreaker Branch

CDR Eric Linton
410 762-6137

RIP Logistics Officer

LT Mike Smith
410 762-6128

Logistics Manager

LTJG Dennis Kohanyi
410 762-6605

Type Support Manager

CWO Gabe Montford
410 762-6603

Configuration Data Mgr.

Ms. Deborah Blake
410 762-6601

Standard Boats Branch

Chief, Standard Boats Br.

LT John Whittemore
410 762-6189

ATON Type Support Mgr.

CWO Roy Brown
410 762-6185

SAR Type Support Mgr.

CWO Michael Mchale
410 762-6188

Platform Configuration Mgr.

MKC Michael Zimmerman
410 762-6181

47 MLB Project Support

MK1 Williams Corners
410 762-6160

49 BUSL Project Support

EM1 Ivan Dump
410 762-6184

Configuration Data Mgr.

MK2 Paul Lanneau
410 762-6187

Configuration Data Mgr.

MK3 Linton Whitehead
410 762-6182

47MLB/49 BUSL Project Mgr.

Mr. Abe Loyal
410 762-6135

As always, please continue to help us in our efforts to provide a MICA (BOSS) Manual that meets the requirements of the ultimate user. . . **You the field.** Information and suggestions can be provided by sending in a suggestion card located in the back of each MICA (BOSS) manual. Mail the card, fax it or just give us a call. Additionally we would like to thank you for taking the time out of your busy schedule to meet with the Standard Boats Branch during our road trips.



Pen and Ink Changes

1. In the 41 BOSS Manual, Figure 332-01, item 3B, stock number 6240-00-132-5365, is the incorrect light for the docking lights. The lamp assembly type R is a sealed and pressed unit and if you disassemble the unit to replace the bulb, you may compromise the watertight integrity of the assembly. Use Item 3A 6230-01-195-9309 in conjunction with a new o-ring as a replacement bulb. The new allowances for item 3A will be 2 in each of the "Boats Per Station" columns.
2. In the 41BOSS Manual, FIGURE 233-34, item A, part number CB115110-000, PEN in NSN 2910-01-448-08526. In Item 3 part number TFTC10-1NPT, PEN in NSN 4820-01-448-1239. The allowance columns remain the same for both items.
3. In Figure 512 of the 44 BOSS Manual, the entire page has changed. The new numbers are as follows

Item	Cage	NSN	P/N	Description
A	97418	4140-01-300-4721	MB424	Blower Exhaust E/R Bilge
1	97418		MD-24-1	24V DC Motor
2	97418		B-4-3	Impeller

4. In the 44 MLB BOSS Manual, forward compartment QAWT NSN 2040-00-542-0200, Figure Group 167, item B, is managed by the Navy. Standard Boat Branch was informed that this door is being supplied as an all steel item and that the 44 MLB door has an aluminum panel. Standard Boat Branch verified this feedback through MLB STANTEAM and then submitted the necessary paperwork to establish an ELC managed NSN for a QWAT Door constructed with the aluminum material consistent with the fleet. The "New" NSN for Item B is 2040-01-420-7325 and the source of supply is ZIC. The remaining three (3) QAWT doors on the 44 MLB are already being managed by ELC. ⚓

Standard Boats PMS Manuals

We've been receiving numerous calls from units requesting PMS manuals. These manuals are free issue, and must be ordered. The following list contents the most current revision and their NSN. ⚓

Vessel	Tech Pub	NSN	Amendment
30 SRB	2196	CG 7610-01-P02-2860	5
41 UTB	2061	CG 7610-01-P02-2120	18
44 MLB	2062	CG 7610-01-P02-2130	17
55 ANB	2094A	CG 7610-01-P04-6400	0

41 Replacement Cabins

The contract to fabricate these tops was recently awarded to Ocean Technical Services, of Harvey, La. Vast improvements in the quality of the product and availability are anticipated. Which should eliminate the preexisting backorders. It's strongly recommended that units inspect any cabin tops they presently have, along with any they receive in the future for any defects. ⚓

41 Engine Room Hatch Gaskets

Having problems getting your engine room hatches to seal properly? MKC Friedlin at UTB System Center has been using a new gasket material called "closed cell neoprene" which will not absorb water or any other liquid that it comes in contact with. It's a soft material, with an adhesive back and comes in 2" width, making installation a lot easier along with providing a snugger fit in the gasket groove. Its recommended to cut all joints at 90 degrees so the points where the gaskets ends meet will not be under the 45 degree joint of the hatch. MKC Friedlin also recommends shimming the softpatch wherever needed with flat washers so the knife-edge is flush at joint. This can be accomplished by putting the softpatch in place and looking at the knife-edges where they come together at the soft patch knife-edge. If they're uneven put a flat washer on the screw under the softpatch to bring it up flush with the other edge. Once you know where shims are needed, remove the softpatch and apply a thick bead of marine sealant on the hull, you may want to apply extra sealant around the shims since the flat surfaces won't be touching because of the shims. Once the sealant sets up, it seals with no problem. This new gasket can be purchase through Hampton Rubber Company, Hampton VA. 23661 804 722-9818, part number SCE42 PSA, POC Jimmy Vines. ⚓

41 Sliding WINDOWS

The sliding windows over time do not seem to seal right due to wear and tear. Cornell Carr, recommends returning the windows for repair to be cost effective, rather than buying a new one. Their number is in the BOSS Manual. ⚓

MORSE CONTROL MT-3

We have received a number of calls here at Standard Boats Branch concerning the 41 UTB MORSE CONTROL MT-3, Fig 252 Item A, NSN-1940-00-132-5075. Occasionally when the control gets to its destination, with the instructions are missing. This presents a problem in adapting the unit to our specific application on the 41. In order to make it easier to install and adapt the control head, you can call Morse Controls Div. Their number is 216 653-7701 and ask them to fax a copy of the owner's manual for the MT-3. It includes detailed instructions on adjusting the shifting and throttle mechanisms. The new control head also has a neutral safety switch in it, and should left alone and not discarded. ⚓

UTB WOODEN LADDER

The mahogany ladder from the Coxswain's flat to the survivor compartment is no longer available. If your ladder is cracked or worn, you will have to repair the ladder locally. The

ladder was originally made of mahogany, which is hard to find and very expensive. The ladder can be repaired or replaced with another hardwood comparable to the mahogany. The Stan Team also said that the aluminum ladders that were bought recently are not standard and should be replaced with a wooden one. When replacing the ladder, remember to follow the original blueprint to help the carpenter. Don't forget to replace the non-skid. (See Figure 1.) ⚓

41 CABIN WIRE RUN

The cabin wire run has been approved for use on the 41 UTB for the cable run going from the engine room to the cabin behind the coxswain's chair. This is an alternate to the material used before. Standard Boats Branch and the distributor prototyped this on Station Curtis Bay's boat and it worked well. Be sure to take time and follow the directions. The STAN TEAM will carry an article on this in their next newsletter. There are two kits available, kit 4101T includes the filler material, sleeves and all tools required, kit 4101 includes the filler material and sleeves only. (See Figure 2.)

Purchase this product through International Marine Products Inc., P.O. Box 2657, Laurel, MD 20709, 301 490-9681, POC: Bob Ladman ⚓

Address Indicator Groups (AIG)

The Ordnance Section sponsors three message traffic AIGs to facilitate communication with and between units involved with ordnance. Cutters and NESUs are designated as authorized users for two of the three. The first is AIG 8959 and is intended for use with message traffic involving the Mk 15 CIWS. The second is AIG 8908, which is intended for message traffic involving the Mk 92 FCS, the Mk 75 GWS, and the Mk 36 DLS (SRBOC). The third, AIG 4965, is used for Mk 38 MGS related message traffic, but the authorized user list is very limited. Please do not send Mk 92 or Mk 75 related messages to AIG 8918. The list of addressees on AIG 8918 is significantly longer than on AIG 8908, and most are not involved in support of Navy-Owned Ordnance Equipment. Please look over your CASREP message templates to ensure the correct AIGs are listed. ⚓

Electronics/Ordnance Branch

Chief, Electronics and Ordnance Branch
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Logistics Manager

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SCLIS Configuration Data Mgr. Mr. Robby Ramkumar
410 762-6159

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410 762-6607

SCLIS Configuration Data Mgr. ET2 Henry Harle
410 762-6164

ELEX Configuration Data Mgr. ET3 Jon Larson
410 762-6602

ELEX Configuration Data Mgr. ET3 Richard Gavin
410 762-6026

Ordnance Team Leader
LT Allen (Brian) Jones
410 763-6632

MK 15/Mk 36/MTR
CWO Mike Miller
410 762-6626

MK75/Mk 38/Budget
CWO Dan Gilt,
410 762-6638

MK 92/COSAL
FTC Eric Schoch
410 762-6621

Branch Secretary
Ms. Shelia Galloway
410 762-6620



Figure 1



Figure 2

RECENT BOATALTs

Class	Number	Title	Date Issued
25 TPSB	25 PSU-A-01	GPS Installation	30 Jun 99
41 UTB	41 UTB-B-99	Engine Air Separator Install	01 Jul 99
44 MLB	44 MLB-B-104-Amend 1	DGPS Installation	15 Jul 98
44 MLB	44 MLB-B-105	Loud Hailer Standardization	27 Feb 98
55 ANB	55 ANB-A-36	55ANB Mast Upgrade	29 Sep 98
55 ANB	55 ANB-A-37	55 ANB Engine Access Hatch Dogs	02 Nov 98

If you have not RECEIVED a copy of these Boatalt's, contact your Group.

SUGGESTED BOATALTs

CLASS	TITLE	CASEFILE
41 UTB	UTB Steering	UTB-041-95-5
41 UTB	Fuel System Leakage	UTB-041-96-57
41 UTB	Emergency Fuel Cut Off Cables	UTB-041-96-60
41 UTB	VHF FM DES Installation	UTB-041-98-1
41 UTB	Upgrade UTB Searchlight	UTB-041-98-10
41 UTB	Paint Scheme Modification	UTB-041-98-2
41 UTB	Power Panel Replacement	UTB-041-98-5
41 UTB	Antifouling Paint System Test	UTB-041-98-7
41 UTB	Dedicated Cell Phone Circuit	UTB-041-98-8
41 MLB	High Frequency Transceiver	MLB-044-98v1
55 ANB	55 ANB Fire Pump Removal	ANB-055-94-1
55 ANB	Crane Padeye Installation	ANB-055-95-9
55 ANB	Electrical Transformer Upgrade	ANB-055-96-2
55 ANB	Wash Down System Removal	ANB-055-96-28
55 ANB	Crane Brake Control Mod.	ANB-055-96-35
55 ANB	Fuel Strainer Removal	ANB-055-96-36
55 ANB	Deck Winch Brake Release	ANB-055-97-001
55 ANB	Danforth Anchor Relocate	ANB-055-97-002

These suggested BOATALTs are being researched at this time.

270 MPCMS Trade-Off Study Underway

By Roger Pruzinsky

Last September the Electrical Systems Branch began an effort to identify the problems and possible solutions for the support, reliability, and casualty issues plaguing the 270 WMEC Machinery Plant Control and Monitoring System (MPCMS). The magnitude of this task became apparent during the initial meeting. A task of this size would quickly overwhelm one or two individuals, so others were invited to join our effort. A new 270 WMEC MPCMS Equipment Team was established. The team, made up of Project Managers, Engineers, Technicians, and Logisticians from the ELC and MLCA, has been tasked with performing a Trade-Off Study to assess the feasibility of upgrading the existing MPCMS. The Electrical Systems Branch has been assigned the lead to conduct the Trade-Off Study and report its findings.

This comprehensive Trade-Off Study will assess past and present CASREPS along with logistics data to ascertain the costs, to date, to maintain the current system. Additionally, this data will be used to project future maintenance costs. Information gathered from a 270 WMEC Engineering Officers (EO) users group will also be used in conducting this study. All of the information and data the team gathers will be used to define the minimum acceptable performance and functional operating levels the cutters expect in a MPCMS.

The Trade-Off Study will analyze these options:

1. Continue to support the current MPCMS throughout the remaining service life of the cutter class.
2. Contract with the OEM to upgrade the current MPCMS.
3. Procure through a competitive process an industry replacement for the current MPCMS.
4. Develop a replacement MPCMS using ELC's technical resources.

Following a thorough review of each of these options, the Trade-Off Study will recommend a course of action to pursue; with, work to begin immediately, as initial efforts have been funded through the POP process. Additional information about this study can be obtained by contacting Alfredo Mistichelli, at 410 762-6811, Andrew Mierzwa /6828, or Roger Pruzinsky /6292. ⚓

Flooding Casualty Control Software (FCCS) Updated

Becoming A Windows NT Program

By Peter V. Minnick

Several years ago, the U.S. Coast Guard recently entered a new era in shipboard stability assessment with the delivery of Flooding Casualty Control Software (FCCS) to the fleet. This program, along with ship-specific FCCS databases and dedicated notebook computers, is now in use on practically all cutters 110 feet in length and greater for the purpose of aiding shipboard personnel with stability calculations. The program provides rapid and accurate evaluation of a ship's intact or damage stability including the destabilizing effects of grounding or flooding. The user has the ability to modify the load-out of the vessel, display the resulting stability of the vessel on graphical screens and view the resulting draft, list and trim. In the case of damage or internal flooding resulting in a large loss of stability, FCCS will prioritize the most effective actions that can be taken by the crew to restore their ship to a more stable condition before further damage occurs or deteriorating sea conditions make matters worse. The FCCS program and associated ship databases are maintained by the Naval Architecture Branch of the Equipment Management Division, Engineering Logistics Center (ELC 023) in Baltimore, MD.

Since the FCCS program's inception in the late 1980s, FCCS has been a DOS-based program. It has been modified significantly over the past decade, and functionality has improved vastly. However, FCCS uses an outdated text-based user interface, the menu structure is not as intuitive as modern Windows-based systems, and all the modifications through the years have resulted in some situations too overly complex for clear program flow. Although adequate at the time, FCCS has become increasingly more difficult to maintain and upgrade with new features. Besides, most computers today use Windows-style programs and mouse-driven pull-down menus. Consequently, it was recognized that the time had come to make the leap into the Windows environment. ELC 023 in conjunction with the U.S. Navy has initiated a major effort to transition FCCS into a Windows NT program that will also run on Windows 95.

The new FCCS program will be more streamlined in moving between input information and output displays. In some cases, a single window will be capable of receiving the input data and presenting the output result simultaneously. Using a tab-sheet feature similar to pages in a MS Excel workbook, the user can quickly move about among related information screens or to more detailed summary information. In fact, all of the user input screens will be simpler and more familiar to use. The modular functionality of the new FCCS is also expected to allow much greater flexibility for future applications. For instance, at the present time several Navy ships have their liquid tanks instrumented with tank level indicators that feed the sounding data directly into FCCS. This saves quite a bit of time from obtaining individual tank soundings and keying the data into the FCCS liquid loading sheets. For these ships the condition of liquid loading is updated in FCCS whenever FCCS needs the information.

Not only is FCCS capable of retrieving information automatically, but there are a number of proposals afoot for FCCS to feed stability information on to other sophisticated systems whenever requested. For instance, the Navy is experimenting with a number of concepts for Command Decision screens that may show things such as a damaged ship's residual strength and limiting speed along with up-to-date stability information from FCCS. Any other program that needs the ship's current displacement and height of the center of gravity could access FCCS for that information for its own use. Examples include seakeeping prediction programs and real-time helicopter or boat launch and recovery guidance.

Among the simpler problems that will be solved with FCCS for Windows is the printing problem. The current DOS version of FCCS uses outdated DOS printer drivers that are built into the program. This aspect of FCCS has not been updated because the original programmer for the printer drivers no longer maintains them for each new printer that enters the market. With the switch to Windows the printing problem will disappear.

The Naval Architecture Branch of the Engineering Logistics Center prepares, approves, updates, distributes, and provides technical support for FCCS. Suggestions and comments about FCCS and its application can be directed to Rubin Sheinberg at 410 762-6709. Technical support is available at 410 762-6708 /6712 and FCCS@ELCBalt.uscg.mil). ⚓

Electronics and Work Station II Mandatory Turn-in Program

Helpful Tips for Returning Repairables

By CW(F&S) Terry Manning

The Engineering Logistics Center (ELC) manages selected Coast Guard Electronics and Standard Workstation II (SWII) equipment under its APA Repairables Program. Located in the 021 Communication Equipment Branch and 022 Navigation Equipment Branch, this program provides for the issue and mandatory turn-in of selected electronic and SWII items through a support pipeline maintained by the ELC. The basic concept is that when a component in the field fails, the unit requisitions a replacement from the ELC utilizing established requisitioning procedures. Upon receipt of the ready-for-issue (RFI) component, the unit returns the defective material unless directed to dispose of it by the item's ELC Inventory Manager. Failure to return required defective material in a timely manner or ordering items when a defective component will not be returned could adversely affect the ELC's ability to meet the demands of other Coast Guard field units.

A few things to remember when using the repairables program that will help your unit receive credit for the returned item and help the ELC process it through repair more quickly:

ELC Electronic/SWII Support Gram

The ELC publishes a semi-annual Electronic/SWII SUPPORT GRAM on 1 April and 1 October. The SUPPORT GRAM lists various information, including the stock number and nomenclature, for the electronic and SWII items that the ELC supports. The SUPPORT GRAM is mailed to units and also appears on the ELC's INTRANET web page. Units with access to the INTRANET via SWIII will see changes posted on a weekly basis.

Document Numbers and the Proper Identification of Items

When contacting the ELC concerning a requisition, ensure that you have the Document Number readily available. The Document Number includes the unit's OPFAC, Julian Date and a four digit unit assigned serial number. The ELC tracks electronic and SWII items

by document number only and not by serial numbers. You should also have the Stock Number, Quantity, Priority, and Required Delivery Date available.

Return Documents

Keep track of all the paperwork you receive with the item. Since the ELC tracks by document number, it is critical that the turn-in document accompanies the returned item. Items received without the proper turn-in documents will be placed in frustrated receipts and may be returned to the unit if we are unable to identify which document number they pertain to.

Serviceable/Unserviceable Material

Always use the CG-5236 when returning defective material to the ELC. Failure to attach a properly filled out CG-5236 creates delays in identifying and repairing the item. The CG-5236 may be requisitioned at no cost from the ELC; stock number 7530-01-GF2-9270, Unit of Issue (HD).

Return Shipments

Always return the item in the box that the RFI was shipped in unless the box was damaged in shipment or the items was a substitute (SWII only), and a different size box is required. Units are responsible for obtaining boxes for shipping.

No Local Repairs

No attempts should be made to repair or modify any equipment or component unless specifically authorized by the Program Manager or ELC Inventory Manager. If the component shows obvious repair attempts by a unit, mishandling or improper shipping, the unit may be charged for the repair or replacement of the returned item.

Do Not Delay in Returning Defective Items

The Supply Policy and Procedures Manual (COMDTINST M4400.19), Page 5-J-45, Ship-

ment of NRFI Carcasses, under the paragraph titled Policy, states that the NRFI document and packages should be returned within 48 hours. The ELC understands that delays may occur due to underway schedules, operations, etc., therefore we allow a return window of 60 days. Failure to return defective material within 60 days of receipt or to respond to written correspondence for items 60 days overdue will result in the unit being charged the replacement cost of the item.

Always Ship via Traceable

This means using a small package carrier such as RPS or FEDEX, or shipping by a commercial carrier using a Government Bill of Lading (GBL). Do not use Surface Parcel Post, Priority Mail, Certified Mail, or Registered Mail. Units are responsible for proving receipt of a returned item by the ELC. The inability to show receipt of a returned item may result in charges to the unit. See ELC Supply Advisories for special shipping instructions for SWII items. These Supply Advisories are listed on the ELC's INTRANET web page.

The Communication Equipment Branch and the Navigation Equipment Branch will continue to look for innovative ways to serve our customers. Increased use of the ELC's INTRANET web site to post pertinent information is one method of expanding our communications with Coast Guard field units. Visit our INTRANET web site at <http://cgweb.elcbalt.uscg.mil>, and let us know what you think! ↴

ALCO Owners Group Teaming With Industry

The Coast Guard has joined the ALCO Owners Group, a service of MPR Associates. The group serves as a central collection point for data, and a good source of technical information about, ALCO 251 Engines.

Several years ago, the ALCO Engine line passed from owner to owner, and technical and parts support was poor. The group allowed members to present a unified position to the engine manufacturer and increase visibility of individual concerns. Today, the ALCO Owners Group consists of several nuclear power utilities, the U.S. Coast Guard and Navy, the Canadian Coast Guard, and the Australian Navy—all of whom operate ALCO 251 engines. Meetings are held up to three times a year, and COLTEC, the current owner of the ALCO engine line, participates in the meetings. Representatives from ELC, NESU Seattle, CGC POLAR SEA, NESU Portsmouth, MLCLANT, and other units participated in 1998 meetings. The information exchanged at these meetings has proven to be incredibly valuable.

As part of the owners group activities, MPR Assoc. is tasked with specific technical activities. For example, an outstanding set of technical documentation has been prepared. Copies of the MPR Assoc. Inspection Manual, and related tech manuals, have been distributed to selected Coast Guard commands for comments. Eventually, we hope to provide copies of these manuals to all units that operate or support ALCO engines. There are plans for generating electronic versions of the tech pubs. Also, the owners group is studying our engine condition analysis methods, with an eye toward condition based maintenance, and extending overhaul intervals.

We can get the most bang for our buck, by participating, and providing information as needed. Questions regarding inspection and maintenance of ALCO engines can be sent directly to MPR Assoc. via email or telephone, or to Tom Gahs—the ELC POC for the ALCO Owners Group. The next meeting has tentatively been planned for late May or early June in Reno, Nevada. All Coast Guard units that operate or maintain ALCO Engines are welcome to participate (although you must provide your own travel funding). If you would like to be included in a mailing list for meeting notifications, please contact ELC POC Tom Gahs at 410 762-6291 or MPR Assoc. Mark O'Connell or Christian Haller at 703 519-0200. ☺



CDDP-PDP8 Loran Processor Keeps on Going!

by William C. Walstrum

Given that we live in a time of rapid technological advancement, where government and industry have become awash by waves of innovation and technological wizardry, the Equipment Management Division's Electronic Systems Laboratory (code 02L) continues to meet the demands of this change, while at the same time, maintaining a linkage to the past. One such technological innovation of the past, to which the Lab is still linked, is the venerable PDP8 computer. Developed in 1965 by the Digital Equipment Corporation (DEC) and sold for approximately \$18,000 each, the PDP8 family of computers has proven its versatility in hundreds of different instrument, machine, and control system applications. And this day, some 34 years after its inauguration, the Coast Guard still employs this product for the monitoring and control of LORAN signals.

Designated by the Coast Guard as the CDDP-PDP8E/5000 Loran processor, the PDP8/E (Programmable Data Processor) is used in conjunction with a Loran 5000A receiver at Loran Monitor Stations. The processor is loaded using a laptop computer with CG 3.3 software and used primarily for the purpose of monitoring amplitude, cycle, and phase of the Loran signal as received by the 5000A.

By today's standards, the PDP8 pales in performance and capability. Considered a portable or minicomputer when it was developed, it weighs approximately 90 pounds. It is a 12 bit general purpose processor with a basic cycle time of 1.2 microseconds and has 16K of non-volatile magnetic core memory. This is in considerable contrast to today's typical 64 bit, 400 MHZ desktop PCs that

support gigabytes of non-volatile storage and 128M of memory. The front panel programmer's console consists of lights and controls for operation and maintenance. Using this interface, the user can set thresholds of the Loran signal such as time delay error and gain error for alarm purposes. The processor contains 17 circuit card assemblies and one power supply. Two of the circuit cards have transmit and receive dip switches that set up the baud rate for communication between the laptop computer and the processor. The processor also contains a Power fail/Auto Restart circuit card that halts the processor in the event of a power failure and automatically restarts the processor without dumping the program when power is restored.

The Electronic Systems Lab supports a population of approximately 62 of these products for customers throughout the U.S. and Canada, as well as customers at the CG Loran Support Unit and TRACEN Petaluma. Employing a combination of organic and commercial repair techniques to restore NRFI processors to a ready for issue (RFI) condition, Lab technicians continue to serve as the final competent technical authority to handle this product before staging for re-issue. Highly trained technicians repair, clean, test, and quality and performance assure each and every single processor before it will be entered back into the supply pipeline to ensure that the fleet customer gets a fully functional product when requested. The Lab supports many products of varying technological maturity, however the CDDP-PDP8E stands as a testimony to the Lab's mandate to provide continued expert support to CG fielded electronic equipment, regardless of age or capability. ☺

Tackling 175 WLM Seawater System Problems

By Mike Wilson

The 175 WLM class has experienced problems with the seawater systems. Air entrapment in the seawater, galvanic action, excessive pipe velocity, improper routing of piping, pump seal failures due to the lack of ASW pump recirculation piping and the incorrect installation of the abrasive separators in the firepump seal water lines are problems the 175 has encountered. The ELC has redesigned the system to correct all these problems and has created a drawing and specification package for inclusion in an upcoming ShipAlt.

■ **Air Entrapment.** Air entrapment is the result of the sea bay/seachest arrangements. There are several factors that contribute to this problem:

1. **Sea Bay Vent Pipes.** The sea bay is divided in half by a centerline structure. Only one half of the sea bay is directly vented through the vent pipe. The other half is indirectly vented through small holes in this centerline structure which could be easily clogged by snow and ice. It is interesting to note that engines, which take suction on the port side of the sea bay, which is the side, the vent is on, are less prone to losing suction.
2. **Sea Bay Suction Tail Pipes.** Each suction tail pipe in the sea bay is poorly arranged and is prone to suck any air entering the sea bay into the piping by way of vortices. The existing arrangement had the suction tail pipe for Main Diesel 1, SSDG 1 and SSDG 2 terminating only 8" below the sea bay overhead. Any air entering the sea bay through the stbd seachest would most likely be sucked into this pipe instead of escaping through the remotely located vent pipe. Main Diesel 2 (which had a better track record of not losing suction) had a suction pipe terminating in the sea bay at a depth of 21" below the sea bay overhead. This problem of poorly arranged suction tail pipes not only applied to the engines but also the ASW pumps and the firepumps.
3. **Sea Bay Recirculation.** The recirculation pipe to the sea bay terminates about 2" below the overhead of the sea bay and discharges directly over the suction tail pipe

for Main Diesel 1, SSDG 1 and SSDG 2. The recirculated water discharging downward at the entrance of the suction tail pipe causes any air in the overhead of the sea bay to be entrained by this impinging stream splashing down on the water surface. This splashing and air entrapment occurs at the inlet to the suction tail pipe and causes the engines to ingest air. The problem of the recirculating water splashing is aggravated by the absence of an orifice plate in the sea bay recirculating line. The flanges are installed for the orifice plate but the only things between these flanges are two gaskets.

4. **Engine Suction Piping.** The SSDG's were provided with self-priming pumps, which are capable of restoring suction automatically after ingesting an air pocket. The main engines have raw water pumps, which are slightly above the waterline and did not have these self-priming pumps. The main engines lose suction after ingesting any significant amount of air. The arrangement of the suction piping serving Main Diesel 1, SSDG 1 and SSDG 2 aggravated this problem. The SSDG's take suction from the bottom of the suction main while the main engine takes suction on the top of the main. The SSDG's receive the water from the bottom of the suction main while the main engine receives the air pockets left behind by the SSDG's. The installation of Gilkes self-priming pumps on the main engines has basically resolved this problem.

■ **Galvanic Action.** The ASW pumps are 316 stainless steel, which is more noble than the 90-10 copper nickel piping. This leaves the piping susceptible to galvanic attack.

■ **Improper Routing of Piping.** The Z-Drive lube oil cooler was not part of the original design. It was installed as a result of high lube oil temperature alarms sounding during the summer months while underway. In order to correct this retrofit, lube oil coolers was installed in series with and upstream of the Z-Drive hydraulic coolers. This allowed use of most of the existing ¾" piping. However, what this arrangement does is pre-heat the seawater going to the Z-Drive hydraulic cooler. The Z-Drive hydraulic cooler was only sized for 90 degree F seawater. When operating in warm climates, the Z-Drive hydraulic coolers will be supplied excessively warm water due to the lube oil heat rejection. The Z-Drive hydraulic coolers will be less effective and overheating could result. Up to now

all WLM cutters have been home ported along the North Atlantic where water temperatures rarely reach 75 degrees F. Therefore this problem has not yet become evident. This problem will most likely occur as soon as the first WLM cutter is operated in the Gulf of Mexico or Florida.

■ Excessive Velocities.

A computer model of the as built piping arrangements found excessive velocities in several pipes including the piping serving the Z-Drive coolers as well as the piping serving the heat pumps when the heat pumps are heavily loaded and the seawater temperatures are high.

■ ASW Pump Recirculation Lines.

There are no recirculation lines serving the ASW pumps. One of the pumps is normally kept running 24 hours a day to provide water to the heat pumps and Z-Drive coolers. The heat pumps and HPU have water-regulating valves, which automatically close during periods of low load. There would be insufficient water running through the pump to prevent the seals from burning in the event the water regulating valves on the heat pumps and the HPU are closed simultaneously and the cut out valves for the Z-Drive coolers were shut. This sounds like it could be an accident waiting to happen when maintenance and repair is being done to the Z-Drive coolers.

■ Firepump Abrasive Separators.

The abrasive separators in seal water lines serving the firepumps are installed incorrectly. Lubricating water is still being supplied to the seals but the separators are not as effective at removing the sand and solids out of this seal water when they are installed incorrectly. The sand and solids in this seal water will probably shorten the life of these seals. ⚓

Overview



In the last article from the Materials Management Division, we discussed some tips on transportation of requisitions. This time, we'd like to tell you a little more about our organization. As we mentioned, our division is responsible for shipping all of the items from our two warehouses. Our transportation people also support the Coast Guard Yard when their personnel go on the "road" to do industrial work. This takes the form of shipping tools and equipment to the work site.

Our division is also the home to the retail inventory at the ELC. This inventory provides supply support to all Baltimore area units. While our biggest customer by far is the Coast Guard Yard, this branch also supports Activities Baltimore, local vessels as well as visiting cutters. This support includes management of retail inventory, other government agency requisitioning and storage and distribution operations. The storage and distribution for this operation is housed at the Curtis Bay warehouse. This warehouse is also where all ELC managed repairable items are located. As of April, this will also include all electronic repairable items. Our division also manages the "Projects" assigned to the ELC. In an article in this month's issue, the "Projects" section of our division is discussed in greater detail.

Our other warehouse is located in Columbia, Maryland. This warehouse contains the Coast Guard unique consumable items of in-

ventory managed by the ELC. Examples of this are ATON supplies, technical publications, CG unique electronics as well as hull, mechanical and electrical items.

Each warehouse is open Monday to Friday. When response is required in the evenings and weekends to satisfy 999 CASREP requisitions, our warehouse professionals are called back to do the job. While you interface with the Requisition Management Branch at the ELC 410 762-6800, we are working behind the scenes to get your requisitions out the door. ⚓

Project Support Galore

By CWO Ken Kiper

Greetings from the Materials Management Division (03), Retail Operations Branch. Projects handles items that are in two categories. (1) HQ/HQ Units Special Electronics Projects and (2) HM&E Retail Operations Projects. For HQ projects we warehouse and manage the inventory of specific electronic equipment procured by HQ/HQ Units. Currently we have 35 of these projects. Some recent examples are SCCS-210 Upgrade, AN/SPS-73 Radar Installation, etc. . . . We receive, store, and distribute these items to various units for installations.

For HM&E Retail Operations Projects, we order, receive, store, issue, and deliver specific items required for outfitting a cutter, whether it's being built from scratch or going through a major overhaul. (i.e.: 210 WMEC MMA, 175 WLM, 225 WLB, and 49 BUSL). Each project has different requirements that contain up to 7000 line items. Over the past 6 months, we've completed the outfitting for (1) 210

WMEC, (5) 175 WLM, (1) WLB, and (5) 49 BUSL projects. Hopefully, this will clear up some of the questions you might have for the projects assigned to the ELC Materials Management Division. If you need further assistance, please call SCPO Thomas Trainor at 410 762-6302. ⚓



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To: Content Approving Officer, USCG Engineering Logistics Center

From:

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From Washington and Points West or South
From HWY 95 or 295 North, Turn right on Baltimore Beltway I-695 heading east toward Key Bridge for 5.4 miles to Exit 1. At the end of the off ramp, bear right. You will immediately come to an intersection with a traffic light (Hawkins Point Road). Make right on Hawkins Point Road and continue for ½ mile to the first traffic light. Turn left into the Coast Guard Yard. The gate guard will provide a parking pass and parking directions.

From Baltimore and Points North or East
From HWY 95 South, turn left on Baltimore Beltway I-695 heading southwest for 16.7 miles, over the Francis Scott Key Bridge, to Exit 1. At the end of the off ramp, turn left. You will immediately come to an intersection with a traffic light (Hawkins Point Road). Turn right on Hawkins Point Road and continue for ½ mile to the first traffic light. Turn left into the Coast Guard Yard. The gate guard will provide a parking pass and parking directions.

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